Development of Effluent Limitations

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	50	IMax	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60	IMax	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	IMin – IMax	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5 1.4	Average Monthly IMAX	-	92a.48(b)(1) & TRC Implementation Guidance
Total Nitrogen	Report	Daily Max	-	92a.61
Total Phosphorous	Report	Daily Max	-	92a.61

Comments: For TRC limits, consideration is given to the length of swale to Unnamed Tributary to Wolf Run. From swale to Unnamed Tributary, it is approximately 800 feet for the discharge to travel before it reaches the confluence. It is considered enough distance of a swale for TRC in the discharge to dissipate before it reaches the stream. Also, the given limits are acceptable based on the Regulation in Chapter 92.48(b)(1), TRC Implementation Guidance 391-2000-015/ May 1, 2003 and an internal memo on TRC Implementation for Sewage Facilities dated June 20, 1995.

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen May 1 to Oct 31 Nov 1 to Apr 30	2.1 4.2 4.4 8.8	Average Monthly IMAX Average Monthly IMAX	WQM6.3
Dissolved Oxygen	5.0	Instant. Minimum	WQM6.3

Compliance History

Summary of DMRs:	A review of the Discharge Monitoring Report indicates general compliance with some minor effluent excursions.
Summary of Inspections:	A review of the inspection reports indicates general compliance with plant being maintained.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.032
Latitude	40° 40’ 8.00”	Longitude	80° 25’ 25.00”
Quad Name	Midland	Quad Code	1302
Wastewater Description:	Treated sanitary sewage from a High School		
Receiving Waters	Swale to Unnamed Tributary of Wolf Run	Stream Code	None for swale For UNT 33532
NHD Com ID	99680454	RMI	UNT 0.53
Drainage Area (sq.mi.)	0.1 for swale, 0.2 for UT	Yield (cfs/mi^2)	0 for swale, 0.027 for UT
Q_{7-10} Flow (cfs)	0 for swale, 0.0054 for UT	Q_{7-10} Basis	Previous Pollution Report
Elevation (ft)		Slope (ft/ft)	
Watershed No.	20-B	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Treatment Facility Summary

Treatment Facility Name: Western Beaver Jr/Sr High School STP

WQM Permit No.	Issuance Date
9113-S	8/25/1958

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary with Ammonia Removal	Extended Aeration	Chlorination	0.004

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.032	54	Not Overloaded	Aerobic Holding Tank	Landfill